of solvent-exposed segments (shown as white boxes in Fig. 6) identified by monoclonal antibodies that bind to linear epitopes in native gp120 (Moore *et al.*, J. Virol. 68: 469-484, 1994), and the immunodominant regions tend to be adjacent to the solvent-exposed segments. Three of these solvent-exposed segments also were preferentially susceptible to proteolysis. Taken together, these observations demonstrated that proteolytic nicking targets presentation of nearby sequences in HIV gp120.

C5

Kindly add the following section after the claims.

Abstract of the Disclosure

The invention features a method that allows detection and creation of immunodominant T cell epitopes in an antigen. This method allows the generation of improved vaccines with which to prevent and/or treat diseases. In addition, detection of T lymphocytes, which react to immunodominant T cell epitopes, is facilitated by the method of the invention. Manipulation of the epitopes detected using this method allows the generation of tolerogens, which can inhibit the immune response to the antigen.

C6

In the Claims

Please amend claims 1, 10, 11, 13, 15, and 58 as follows.

1. (Amended) A method for stimulating an immune response specific toward a naturally-occurring protein in an animal having an immune system including T cells, said method comprising administering to said animal an altered protein or polypeptide fragment thereof derived from said naturally-occurring protein, wherein an unstable polypeptide segment has been inserted by artifice into said altered protein, wherein said unstable polypeptide segment has an average hydrophobicity value that is lower than the C7 average hydrophobicity value of said altered protein; has a sequence conservation that is lower than a sequence conservation of said altered protein; has an amide protection factor that is lower than 10^4 wherein said altered protein is in a native conformational state; has an average amide protection factor that is lower than the average amide protection factor for said altered protein in a denatured conformational state; has an NMR order parameter (S^2) of less than 0.8; or has an average B-factor value that is higher than the average B-factor value of said altered protein, and wherein immunogenicity of said naturally-occurring protein is increased.

10. (Amended) The method of claim 1, wherein said altered protein or polypeptide fragment thereof is in a vaccine.

C8

11. (Amended) The method of claim 1, wherein said unstable polypeptide segment comprises at least twelve amino acid residues.

13. (Amended) The method of claim 1, wherein said unstable polypeptide segment comprises a polypeptide sequence that is specifically recognized by a protease.

C9

15. (Amended) The method of claim 1, wherein said altered protein comprises a T cell epitope.

C10

58. (Amended) A method for stimulating an immune response toward naturally-occurring HIV gp120 protein in a human, said method comprising administering to said human an altered HIV gp120 protein, wherein a human Hsp 10 mobile loop has been inserted by artifice into said altered HIV gp120 protein.

C11

Please cancel claims 9 and 14.